

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:	PCT
LEE, Won Hee	
8th Fl., Sung-ji Heights II, 642-16 Yoksam-dong, Kangnam-ku, Seoul135-080, Republic of Korea	



NOTIFICATION OF TRANSMISSION OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing (day/month/year) 01 OCTOBER 2004 (01.10.2004)
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Applicant's or agent's file reference 3fpo-06-01	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/KR2004/000309	International filing date (day/month/year) 16 FEBRUARY 2004 (16.02.2004)
Applicant LEE, Choul-Gyun et al	

1. The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

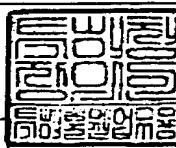
Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/KR Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer COMMISSIONER Telephone No. 82-42-481-5198
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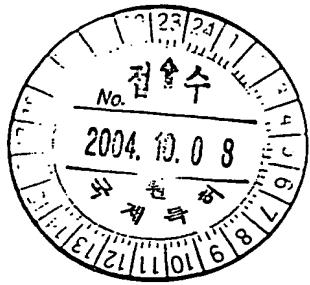


PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44).



Applicant's or agent's file reference 3fpo-06-01	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/KR2004/000309	International filing date (day/month/year) 16 FEBRUARY 2004 (16.02.2004)	(Earliest) Priority Date (day/month/year) 16 DECEMBER 2003 (16.12.2003)
Applicant LEE, Choul-Gyun et al		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box No. II)

3. Unity of invention is lacking (See Box No. III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1 a

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

b. none of the figure is to be published with the abstract.

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 C12M 1/00, C12M 1/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C12M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean Patents and applications for inventions since 1975

Korean Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
KIPASS, Delphion, CA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2000-12673 A (Addavita Ltd) 09 March 2000 see the whole documents	1-19
A	US 4952511 A (Martek CORP) 28 August 1990 see the whole documents	1-19
A	WO 91-07080 A (Hoeksema) 10 November 1992 see the whole documents	1-19
A	JP 10-108665 A (Kajima CORP) 28 April 1998 see the whole documents	1-19
A	KR 2003-12650 A (HWANG, G Y et al.) 12 February 2003 see the whole documents	1-19

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

30 SEPTEMBER 2004 (30.09.2004)

Date of mailing of the international search report

01 OCTOBER 2004 (01.10.2004)

Name and mailing address of the ISA/KR


 Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon 302-701,
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

WON, Jong Hyeok

Telephone No. 82-42-481-5592



INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2004/000309

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
W00061719A1	19.10.2000	AU4544700A BR0009764A DE19916597A1 EP1169428A1 N020014150A	14.11.2000 08.01.2002 19.10.2000 09.01.2002 06.12.2001
US 4952511 A	28.04.1990	None	
W09107080A1	30.05.1991	AU6919291A CA2069414A1 EP0502118A1 IL96437A JP5501649T	13.06.1991 23.05.1991 09.09.1992 12.04.1994 02.04.1993
JP 10-108665 A	28.04.1998	None	
KR 2003-12650 A	12.02.2003	None	